

CLAIMS

What is claimed is:

1. A system for management of a network of devices and resources available to the devices via a computer network, comprising:

5 a network directory defining a network topology of nodes corresponding to the network of devices and defining policies corresponding to and to be enforced upon the resources available to the devices;

10 a policy orchestrator server in communication with the network directory, the policy orchestrator server being adapted to determine a hierarchical tree structure containing the nodes based upon location of each node in the network topology, determine a policy for each node in the hierarchical tree structure, and communicate said policy to the corresponding node; and

15 an agent corresponding to each device in the network of devices, the agent being in communication with the policy orchestrator server and the resources corresponding to the device, the agent being adapted to receive data from the policy orchestrator server and to enforce the policies corresponding to the resources,

wherein the policies corresponding to the resources of each device are selectively inherited along the hierarchical tree structure.

2. The system for management of a network of devices and resources via a computer network according to claim 1, further comprising a management console in communication with the network directory and the policy orchestrator server for providing a user interface, the management console being adapted to selectively display
5 the hierarchical tree structure and the policies stored in the network directory.

3. The system for management of a network of devices and resources via a computer network according to claim 2, wherein the management console dynamically determines the policy of a selected node of the hierarchical tree structure.

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4. The system for management of a network of devices and resources via a computer network according to claim 3, wherein the management console dynamically determines the policy of the selected node by reading the policies of nodes along a path of nodes from a root of the hierarchical tree structure to the selected node and wherein the
15 management console overwrites previously written policies upon reading conflicting policies at each node along the path of nodes.

5. The system for management of a network of devices and resources via a computer network according to claim 3, wherein the management console dynamically
20 determines the policy of the selected node by reading from the policies of the selected node up to the policies of a root of the hierarchical tree structure.

6. The system for management of a network of devices and resources via a computer network according to claim 1, wherein each policy is selected from the group consisting of a configuration rule and a scheduled task.

5 7. The system for management of a network of devices and resources via a computer network according to claim 1, wherein at least one policy is a scheduled task and wherein the agent causes performance of the task when the scheduled task is to be performed.

10 8. The system for management of a network of devices and resources via a computer network according to claim 1, wherein the policy orchestrator server includes a software repository adapted to be selectively transmitted to the device via the agent corresponding to the device.

15 9. The system for management of a network of devices and resources via a computer network according to claim 1, wherein the policy orchestrator server includes an agent installation module adapted to be transmitted to the device for installation of the corresponding agent on the device.

10. The system for management of a network of devices and resources via a computer network according to claim 1, wherein each agent includes a task execution component for causing performance of a scheduled task at a scheduled time, a policy enforcement component for enforcing policies applicable to resources of the corresponding device, a property collection component for collecting and storing properties of the corresponding resources of the device and for transmitting the properties to the policy orchestrator server, and an event collection component for collecting and storing event data and for transmitting the event data to the policy orchestrator server.

11. A method for management of a network of devices and resources available to the devices via a computer network, comprising:

determining a hierarchical tree structure based upon locations of devices in a network topology, each device being a node in the hierarchical tree structure;

determining policies for each node in the hierarchical tree structure to be enforced by an agent corresponding to each node, the agent being in communication with the device and the resources corresponding to the device; and

communicating the policy to the corresponding agent; and

wherein the policies corresponding to the resources of each device are selectively inherited along the hierarchical tree structure of the network directory.

12. The method for management of a network of devices and resources via a computer network according to claim 11, further comprising enforcing the policies by the agent upon the corresponding device and resources available to the device.

13. The method for management of a network of devices and resources via a computer network according to claim 11, further comprising:

transmitting an agent installation package to the corresponding device;

5 installing the agent on the device; and

transmitting a message by the agent to the policy orchestrator server, the message containing properties of the device, the agent being adapted to enforce the policies corresponding to the resources contained in the network directory.

10 14. The method management of computer application via a computer network according to claim 11, further comprising selectively displaying the hierarchical tree structure and the policies stored in the network directory by a management console in communication with the network directory and the policy orchestrator server, the management console providing a user interface.

15 15. The method management of computer application via a computer network according to claim 14, further comprising dynamically determining the policy of a selected node of the hierarchical tree structure by the management console.

16. The method management of computer application via a computer network according to claim 15, wherein the dynamic determining includes reading policies of nodes along a path of nodes from a root of the hierarchical tree structure down to the selected node and overwriting previously written policies upon reading conflicting
5 policies at each node along the path of nodes.

17. The method management of computer application via a computer network according to claim 15, wherein the dynamic determining includes reading policies of nodes along a path of nodes from the policies of the selected node up to the policies of a
10 root of the hierarchical tree structure.

18. The method for management of a network of devices and resources via a computer network according to claim 11, wherein each policy is selected from the group consisting of a configuration rule and a scheduled task.
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19. A method for management of a network of devices and resources via a computer network according to claim 11, wherein when the policy is a scheduled task, further comprising causing performance of the task by the agent when the scheduled task is to be performed.
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20. A method for management of a network of devices and resources via a computer network according to claim 11, further comprising selectively transmitting data from a software repository of the policy orchestrator server to the device via the agent corresponding to the device.

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21. A method for management of a network of devices and resources via a computer network according to claim 11, further comprising transmitting an agent installation module by the policy orchestrator server to the device for installation of the corresponding agent on the device.

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22. A computer program product for management of a network of devices and resources available to the devices via a computer network, comprising:

computer code that determines a hierarchical tree structure based upon locations of devices in a network topology, each device being a node in the hierarchical tree structure;

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computer code that determines policies for each node in the hierarchical tree structure to be enforced by an agent corresponding to each node, the agent being in communication with the device and the resources corresponding to the device; and

computer code that communicates the policy to the corresponding agent;

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wherein the policies corresponding to the resources of each device are selectively inherited along the hierarchical tree structure of the network directory; and

a computer readable medium that stores said computer codes.

23. The computer program product for management of a network of devices and resources via a computer network according to claim 22, further comprising computer code that enforces the policies upon the corresponding device and resources available to the device.

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24. The computer program product for management of a network of devices and resources via a computer network according to claim 22, further comprising:

computer code that transmits an agent installation package to the corresponding device;

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computer code that installs the agent on the device; and

computer code that transmits a message by the agent to the policy orchestrator server, the message containing properties of the device, the agent being adapted to enforce the policies corresponding to the resources contained in the network directory.

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25. The computer program product for management of a network of devices and resources via a computer network according to claim 22, further comprising computer code that selectively displays the hierarchical tree structure and the policies stored in the network directory in communication with the network directory and the policy orchestrator server, the management console providing a user interface.

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26. The computer program product for management of a network of devices and resources via a computer network according to claim 25, further comprising computer code that dynamically determines the policy of a selected node of the hierarchical tree structure by the management console.

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27. The computer program product for management of a network of devices and resources via a computer network according to claim 26, wherein the computer code that dynamically determines includes computer code that reads policies of nodes along a path of nodes from a root of the hierarchical tree structure down to the selected node and
10 computer code that overwrites previously written policies upon reading conflicting policies at each node along the path of nodes.

28. The computer program product for management of a network of devices and resources via a computer network according to claim 26, wherein the computer code that
15 dynamically determines includes computer code that reads policies of nodes along a path of nodes from the policies of the selected node up to the policies of a root of the hierarchical tree structure.

29. The computer program product for management of a network of devices and
20 resources via a computer network according to claim 22, wherein each policy is selected from the group consisting of a configuration rule and a scheduled task.

30. The computer program product for management of a network of devices and resources via a computer network according to claim 22, wherein when the policy is a scheduled task, further comprising computer code that causes performance of the task by the agent when the scheduled task is to be performed.

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31. The computer program product for management of a network of devices and resources via a computer network according to claim 22, further comprising computer code that selectively transmits data from a software repository of the policy orchestrator server to the device via the agent corresponding to the device.

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32. The computer program product for management of a network of devices and resources via a computer network according to claim 22, further comprising computer code that transmits an agent installation module by the policy orchestrator server to the device for installation of the corresponding agent on the device.

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33. A computer program product for management of a network of devices and resources available to the devices via a computer network, comprising:

computer code that contains a network directory defining a hierarchical tree structure containing nodes corresponding to the network of devices and defining policies

5 corresponding to and to be enforced upon the resources available to the devices;

computer code that facilitates communication between a policy orchestrator server and the network directory to facilitate accessing data from and storing data to the network directory, the data relating to the nodes of the hierarchical tree structure corresponding to the devices and to the policies corresponding to the resources;

10 computer code that facilitates communication between an agent and the policy orchestrator server and the resources corresponding to the device, the agent computer code being adapted to enforce the policies corresponding to the resources contained in the network directory, wherein the policies corresponding to the resources of each device are selectively inherited down the hierarchical tree structure of the network
15 directory; and

a computer readable medium that stores said computer codes.